

German Patents Fulltext

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Flow velocity measuring device

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Abstract (English machine translation)

In a channel, which connects an inlet (12) to an outlet (14), a valve body (18) is arranged, which moves through a stroke to influence the degree of opening as a reaction to the flow velocity of a liquid. A front-back differential pressure across the valve body (18) and the stroke of the valve body (18) are determined by means of pressure sensors (24, 26) and a stroke sensor (32). The flow velocity of the liquid is calculated from the determined front-back differential pressure and the determined stroke of the valve body (18). From the front-back differential pressure and the stroke of the valve body (18) a flow coefficient is derived, in order to be able to calculate the flow velocity therefrom. If the Reynolds Number of the system has reached its maximum value, the flow coefficient is set to a constant value by means of a limit switch.